C l a i m s

1. Method for detecting cells in a biological sample which comprises the following steps:
   (a) preparing a sample to be tested,
   (b) contacting the sample with at least two different binding molecules which recognize the cells to be detected, the binding molecules being each labelled with different fluorescent dyes and
   (c) determining the fluorescent labels in the sample fixed on a solid phase.

2. Method as claimed in claim 1,
characterized in that
tumour cells are detected.

3. Method as claimed in claim 1 or 2,
characterized in that
the detection is carried out in a bone marrow sample.

4. Method as claimed in one of the claims 1 to 3,
characterized in that
antibodies or antibody fragments or/and receptor ligands are used as cell-specific binding molecules.

5. Method as claimed in one of the claims 2 to 4,
characterized in that
a first cytokeratin-specific binding molecule and a second urokinase receptor-specific binding molecule are used.

6. Method as claimed in one of the claims 1 to 5, **characterized in that** the binding molecules are indirectly labelled.

7. Method as claimed in one of the claims 1 to 5, **characterized in that** the binding molecules are directly labelled.

8. Method as claimed in one of the claims 1 to 7, **characterized in that** the sample is evaluated by a confocal laser scanning microscope or by a fluorescence microscope.

9. Method as claimed in one of the claims 1 to 8, **characterized in that** the sample is evaluated by parallel or/and sequential determination of the fluorescence of the various labelling groups.

10. Method as claimed in one of the claims 1 to 9, additionally comprising a characterization of cells identified by reaction with the binding molecules.

11. Method as claimed in claim 10, **characterized in that** the characterization comprises a site-specific or/and quantitative determination of the fluorescent label.

12. Reagent kit for the detection of cells in a biological sample comprising
(a) a first binding molecule which recognizes the

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cells to be detected and a first fluorescent labelling group,

(b) a second binding molecule which recognizes the cells to be detected and a second fluorescent labelling group, the first and the second binding molecule and the first and the second fluorescent labelling group being different and

(c) means for fixing cells on a solid phase.

13. Use of the method as claimed in one of the claims 1 to 11 or the reagent kit as claimed in claim 12 to detect micrometastases in biological samples.

14. Use of an antibody which is directed against the epitope 52-60 of the urokinase receptor (uPAR) or of an antigen binding fragment thereof to produce a diagnostic or therapeutic agent directed against uPAR on tumour cells.

15. Use as claimed in claim 14 as a diagnostic agent to predict the course of malignant diseases.

16. Use as claimed in claim 14 as a diagnostic agent to detect tumour cells in a biological sample.

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17. Use as claimed in claim 16 to detect disseminated tumour cells in bone marrow.

18. Use as claimed in one of the claims 15 to 17 in an ELISA.

19. Use as claimed in one of the claims 15 to 17 in a double-fluorescence detection method.

20. Use as claimed in claim 14 as a therapeutic agent for blocking the function of tumour cells.

21. Use as claimed in claim 14 in the form of a conjugate with a cytotoxic group to inhibit the growth of or kill tumour cells.

22. Use as claimed in claim 21,
characterized in that
the cytotoxic group is selected from radioactive groups, toxins and inhibitors.

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23. Use as claimed in one of the claims 14 to 22,
characterized in that
the antibody is selected from the monoclonal antibody IIIF10, fragments thereof or antibodies or antibody fragments having an equivalent binding specificity.

24. Recombinant nucleic acid which codes for a polypeptide having antibody properties comprising
(a) a CDR3-VH sequence coding for the amino acid sequence (I):
D G S M G G F D Y
or/and
(b) a CDR3-VL sequence coding for the amino acid sequence (II):
L Q H W N Y P Y T.

25. Recombinant polypeptide having antibody properties comprising:
(a) a CDR3-VH amino acid sequence (I):
D G S M G G F D Y
or/and

(b) a CDR3-VL amino acid sequence (II):
L Q H W N Y P Y T.

26. Recombinant polypeptide as claimed in claim 25, **characterized in that**
it is an scFv antibody fragment.

27. Recombinant polypeptide as claimed in claim 25 or 26, **characterized in that**
it is a humanized antibody fragment.

28. Recombinant polypeptide as claimed in one of the claims 25 to 27, **characterized in that**
it is coupled to an effector group.